

REMARKS

Claims 1-31 are pending. Claims 1, 19, and 25 are rejected under 35 U.S.C. § 112, first paragraph. Claims 1-16 and 19-27 are rejected under 35 U.S.C. § 102(e). Claims 17-18 and 28-31 are rejected under 35 U.S.C. § 103(a).

Claims 1, 19, and 25 are rejected under 35 U.S.C. § 112, first paragraph, for reciting "and not selecting another frequency from the plurality of frequencies." Claim 1 recites "A method of controlling wireless communication from a first device to a second device arranged to receive a plurality of frequencies via a wireless communication link according to a predetermined frequency hopping pattern, comprising: obtaining information indicative of communication quality provided by one of said frequencies; *selecting a frequency and not selecting a nother frequency from the plurality of frequencies* on which to transmit a selected communication to the second device in response to the information indicative of communication quality." (emphasis added). Claims 19 and 25 recite similar limitations.

The invention of claim 1 is directed to a method controlling wireless communication from a first device to a second device arranged to receive a plurality of frequencies according to a predetermined frequency hopping pattern. Referring to Figure 2 of the instant specification for example, communication from a first device (MASTER) to a second device (SLAVE 1) is illustrated over a plurality of frequencies f_1 - f_{24} in a predetermined frequency hopping pattern. A scheduler 16 (Figure 1) obtains communication quality information on lead 19 by, for example, sync word correlation, cyclic redundancy code verification, acknowledgement (ACK) or negative acknowledgement (NAK), or other means as described at page 10, line 11 through page 11, line 5 of the instant specification. The scheduler 16 selects a frequency and does not select another frequency from the plurality of frequencies on which to transmit a selected communication to the second device in response to the communication quality information as described at page 11, lines 7-14. Referring to Figure 2, the instant specification teaches "If the frequency f_i specified by the normal frequency hopping pattern for the master device's next transmission to the first slave device

is, for example, in a deep fade for the channel to the first slave device, but the channel to the second slave device on that frequency f_1 is very good, then the scheduler 16 would choose that frequency f_1 for transmission to the second slave device, because transmission of a packet to the second slave device on that frequency is more likely to be successful than transmission of a packet to the first slave device on that frequency." If frequency f_3 specified by the normal frequency hopping pattern for the master device's next transmission to the first slave device is good, then the scheduler 16 would choose that frequency f_3 for transmission to the first slave device. The scheduler, therefore, would select a frequency (f_3) and not select another frequency (f_1) from the plurality of frequencies (f_1 - f_{24}) on which to transmit a selected communication to the second device (slave 1) in response to the information indicative of communication quality. Applicant respectfully submits that the phrase "and not selecting another frequency from the plurality of frequencies" is not new matter and is supported in the specification. Thus, claims 1, 19, and 25 are patentable under 35 U.S.C. § 112, first paragraph.

Claims 1-16 and 19-27 are rejected under 35 U.S.C. § 102(e) as being anticipated by Kostic et al. (U.S. Pat. No. 6,549,784). Claims 1-16 recite "A method of controlling wireless communication from a first device to a second device arranged to receive *a plurality of frequencies* via a wireless communication link *according to a predetermined frequency hopping pattern*." Claims 19-24 recite "a wireless communications interface for communicating with a further frequency hopping wireless communication apparatus arranged to receive *a plurality of frequencies* via a wireless communication link *according to a predetermined frequency hopping pattern*." Claims 25-27 recite "a second frequency hopping wireless communication device . . . arranged to receive *a plurality of frequencies . . . according to a predetermined frequency hopping pattern*." (emphasis added).

Kostic et al. disclose "dynamically replacing system frequencies in use within selected frequency hopping patterns with system frequencies having lower interference levels." (col. 4, lines 46-50). Kostic et al. disclose changing a frequency hopping pattern to improve communication. Kostic et al. specifically teach away from communication according to a predetermined frequency

hopping pattern as required by the present invention. Referring to Figure 4, Kostic et al. disclose "Frequency hop pattern adaptation module 426 determines which frequencies should be replaced and informs the frequency hopping module 430. Frequency hopping module 430 makes the appropriate frequency changes and uses processor 420 to transmit a message to frequency hopping module 428. This message instructs frequency hopping module 428 to make the same frequency changes." (col. 9, lines 41-48). This change of frequency hop patterns at adaptation module 426 of base station 404 must be communicated to frequency hopping module 428 of terminal station 402. By way of contrast, the first device of the present invention communicates with the second device (Claims 1-16) according to a predetermined frequency hopping pattern. This method is highly advantageous over methods of the prior art. The plurality of frequencies according to the predetermined frequency hopping pattern remains unchanged. The plurality of frequencies according to the predetermined frequency hopping pattern, therefore, are not transmitted to the second device. Thus, no delay time or transmit power is required to transmit or update a hop sequence list. The second device monitors each of the plurality of frequencies for communication data from the first device. Thus, applicant respectfully submits claims 1-16 and 19-27 are patentable under 35 U.S.C. § 102(e) over Kostic et al.

Claims 1-16 further recite "transmitting the selected communication to the second device via the wireless communication link on the selected frequency at a time when the selected frequency is specified by the frequency hopping pattern for a transmission by the first device." Claims 19-24 recite "transmitting the selected communication to the further apparatus on the selected frequency at a time when the selected frequency is specified by the frequency hopping pattern for a transmission by said wireless communication interface." Claims 25-27 recite "transmitting the selected communication to said first device on the selected frequency at a time when the selected frequency is specified by the frequency hopping pattern for a transmission by said wireless communications interface."

Kostic et al. fail to disclose communication according to a predetermined frequency hopping pattern as required by the present invention. Thus, Kostic et al. also fail to disclose

transmitting to the second device on the selected frequency at a time when the selected frequency is specified by the frequency hopping pattern for a transmission by the first device. (Claims 1-16). Kostic et al. fail to disclose transmitting the selected communication to the further apparatus on the selected frequency at a time when the selected frequency is specified by the frequency hopping pattern for a transmission by said wireless communication interface. (Claims 19-24). Finally, Kostic et al. fail to disclose transmitting the selected communication to said first device on the selected frequency at a time when the selected frequency is specified by the frequency hopping pattern for a transmission by said wireless communications interface. (Claims 25-27). For all the foregoing reasons, therefore, applicant respectfully submits claims 1-16 and 19-27 are patentable under 35 U.S.C. § 102(e) over Kostic et al.

Applicant has acknowledges the rejections of claims 17-18 and 28-31 under 35 U.S.C. § 103(a), but considers them moot in view of the foregoing discussion.

In view of the foregoing, applicants respectfully request reconsideration and allowance of claims 1-31. If the Examiner finds any issue that is unresolved, please call applicant's attorney by dialing the telephone number printed below.

Respectfully submitted,



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